**EXHIBIT A**

**ESI Production Specifications**

ESI Productions shall be conformed as follows:

ESI productions require the data to be produced as images, text files, and a load file as detailed below, with native files provided for discrete data types.

Each container file, such as an email PST or NSF or file containers such as a ZIP file or RAR file, shall be extracted. Each email attachment is to be extracted from the parent email as a separate document. The parent/child relationship between email and attachment is to be maintained.

Accordingly, please produce the following for each record:

1. Deliverable Format

Each production volume should have separate NATIVE, IMAGE and TEXT sub-folders for the native, image and text files, and shall contain no more than 5,000 files per numbered sub-folder. The Volume folder will contain the data file. The data file will be named for the production volume and will have the .DAT file extension. The volume folder will contain a Concordance Image (Opticon) image load file with either the .opt or .log file extension. The image load file will be named for the production volume.

2. Document Images

All documents or files are to be scanned or printed to CCIT Group IV, 300 DPI resolution, single-page, 1-bit TIFF images or jpeg images, except for structured data, Microsoft Excel, and Microsoft PowerPoint files, which shall be produced in native format unless such materials contain privileged or redacted information. If a file slated to be produced natively

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contains privileged or redacted information, the parties will produce TIFF versions of the document.  In the interest of reducing overall production page counts, redacted native files will also be accepted. Each image is to be endorsed in the lower right-hand corner with a unique serial ("Bates") number.  The Bates number shall not obscure any information in the image. Any confidentiality designation should appear in the lower left-hand corner of each image.

3. Text Files

A single, document-level, Unicode text file is to be produced for each record.  Text files should be named with the Bates number on the first page of the document.  In the case of a file where the text is electronically extractable, the text file shall contain the electronically extracted text.  For files where the text of the document is not electronically extractable, the file shall be imaged and then processed using optical character recognition (OCR).  The text from a slip sheet should not be provided in the text file.

4. Native Electronic Files

Native format means the format in which the data was originally created. Native electronic files are to be produced for structured data (e.g., non-renderable data such as media files and those that are not conducive to accurate or efficient TIFFing), Microsoft Excel and associated spreadsheet formats (e.g., csv), Microsoft PowerPoint files, and technical drawings (CAD). Each native file is to be assigned a single Bates number corresponding to the beginning Bates number of the document, and an associated TIFF placeholder should be inserted in the set of produced images. The placeholder should adhere to the Bates and confidentiality endorsing requirements noted above. The placeholder shall state the following: "Document Produced in

Native Format." The extracted text shall be provided for each native file. A link to each native file shall be provided in the "Native File Path" field of the .DAT file. Database files should not be produced in native form. Parties agree to meet and confer on the form of production of data from databases.

> 5. Phone Sourced Data

Text-specific metadata as noted below should be included in any production containing data sourced from a phone or mobile device.

> 6. Concordance Load File

A Concordance .DAT file should be produced containing document boundaries, attachment (parent/child) relationship, and metadata fields corresponding to those listed below (to the extent those fields exist and are available). The metadata field names should appear in the first line of the .DAT file. Each file produced should have a corresponding record (row) in the data file.

| Metadata Fields: | Description: |
| --- | --- |
| Bates Beg | The Bates number or file identification number of the start of the document. |
| Bates End | The Bates number or file identification number of the end of the document. |
| Bates Beg Attach | The beginning Bates number or file identification number of the first document in the parent/attachment group. |
| Bates End Attach | The ending Bates number or file identification number of the last document in the parent/attachment group. |
| Email To | The recipient of the document or email. |
| Email From | The sender of the email. |
| Email CC | Persons copied on the document or email. |
| Email BCC | Persons blind-copied on the document or email. |

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| Custodian | The person who maintains custody of the document or email. |
| All Custodians | Semi-colon delimited list of all custodians with custody of the file within the collected data set. |
| File Extension | The original extension of the file. |
| Author | The author of the document. |
| Date/Time Created | Date the document or email was created. Formatted in a single field as mm/dd/yyyy 6:24 PM. |
| Date/Time Sent | Date the document or email was sent. Formatted in a single field as mm/dd/yyyy 6:24 PM. |
| Date/Time Received | Date the document or email was received. Formatted in a single field as mm/dd/yyyy 6:24 PM. |
| Date/Time Last Modified | Date last modified for attachments and standalone files. Formatted in a single field as mm/dd/yyyy 6:24 PM. |
| Date Last Printed | Date last printed for attachments and standalone files. |
| Email Subject | The subject line(s) of the email. |
| File Name | File name of the electronic document. |
| Original Folder Path | Original file path as maintained by the operating system or network. |
| Folder Name | Email or document folder information. |
| MD5, SHA-1, or SHA-1 Hash | The identifying value used for deduplication and authentication. |
| Processing Time Zone | The standardized time zone used for processing. |
| Confidential Designation | Designation of any confidentiality claim applied to the document. |
| Native File Path | File path to location of native format document. |
| Text Path | File path to extracted text (or OCR in the case of redacted images) of the document. |
| Participants | Text-specific field. Lists all participants in a chat or text conversation. |
| | Text-specific. Note type of message (SMS, MMS) |
| Message Type | Text-specific field. |
| Custodian Phone Number | |

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| | |
|---|---|
| | Text-specific field. |
| Phone Model | Text-specific field. Notes operating system of the phone or mobile device. |
| OS | |
| OS Version | Text-specfic field. Operating System version of the phone or mobile device. |
| Conversation ID | Text-specific field. Notes Conversation ID number of text/chat. |
| Conversation Start Date | Text-specific field. |
| Conversation End Date | |
| Attach count | Text-specific field. S= |
| Message Count | Text-specific field. |
| | Text-specific field. |

7. <u>Concordance Image (Opticon) Compatible Image Load File</u>

Produce an Opticon .OPT or .LOG page level load file with each line representing one image, containing the following comma-delimited fields:

Page Identifier, VOLUME Identifier, IMAGE PATH, DOCUMENT BREAK,

FOLDER BREAK, BOX BREAK, PAGE COUNT

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